

posed by the Council, merely to guard against being compelled to hold it on a day inconvenient to every one, such as Whit Monday or any other public holiday. Had any discretionary power been allowed, I should have deferred the Meeting on this occasion for another week, as the Whitsun holidays are still unexhausted.

Before terminating these preliminary remarks, I must express on your behalf, as well as on that of the Council and myself, our cordial thanks to the Senate of the University of London for the continuance of the privilege they so liberally accord us of holding our Meetings in this commodious Hall.

I will now proceed to the matters of more permanent interest, which form the proper subject of this Report. And my first duty, in accordance with past traditions and the usual order of proceeding, is to bring before you a record of the losses sustained since the last Anniversary by the death of many distinguished Geographers, and fellow-labourers in this field.

OBITUARY.

ADMIRAL SIR EDWARD BELCHER, K.C.B.—By the death of Sir Edward Belcher, on the 18th of March, in his 78th year, the Society has lost one of its oldest and most distinguished Fellows. He was one of the original members, of whom scarcely twenty now remain, who joined it on its formation in 1830.

Sir Edward Belcher was both a scientific and a practical cultivator of Geography, as well as an accomplished master in the kindred science of Hydrography. He was essentially a worker. A student of science from his boyhood, he has left his mark on many branches of it, and his works will long survive him. Many who have preceded him, and some who still remain, have owed, in great measure, to his example and instruction much of the eminence to which they may have attained in public life. It is, however, to his services as a geographer and explorer that we confine ourselves in this brief record.

He first brought himself into public notice when he sailed with Beechey as a Lieutenant and Surveyor on board the *Blossom*, in her voyage to the Pacific and Behring Straits. In this voyage, which extended over nearly four years, Lieutenant Belcher took a most active and important part.

In the comparatively imperfectly known condition of the Pacific at this period, the duties of a surveying ship were chiefly confined

to fixing accurately the astronomical positions of the various groups of islands which were fallen in with, making such cursory examinations and surveys as time would admit of, and expunging from the charts many supposed dangers which the uncertainties of longitude had repeated in several positions, and which proved a source of anxiety and perplexity to the ordinary navigator.

In this way the *Blossom*, leaving the coast of America, visited the Easter, Ducie, and Pitcairn Islands, the latter celebrated in connection with the mutiny of the *Bounty*; she thence proceeded to the Gambier Group, which were surveyed in considerable detail; subsequently, to many of the low coral isles of Polynesia, when several new ones were discovered, and the positions of others correctly determined, and in March 1826, she reached Tahiti, the principal of the Society Group. After remaining a few weeks here, she sailed for Behring Straits, by the Sandwich Isles and Kamtchatka, a portion of her captain's instructions being that she should pass the summers of 1826-27 in this region in order to co-operate with Parry and Franklin, then exploring the Arctic Seas, in case either of them should succeed in accomplishing the North-West Passage. In July 1826, the ship reached Kotzebue Sound, when, with the assistance of her decked boat, a survey of the coast to the North was commenced, the ship herself reaching a point which was named Cape Franklin in $71^{\circ} 7'$ N. latitude, and her barge a position considerably further advanced. Foiled in their expectation of meeting Franklin's land party, although the boat had reached within 120 miles of his farthest western position, the *Blossom* quitted Behring Straits in the middle of October, and returned to resume her surveying duties in the Pacific, until the time should again have come round for a second attempt. During this second stage of the voyage, San Francisco, then under the Mexican flag, was visited and surveyed. From thence the ship proceeded again to the Sandwich Isles, searching unsuccessfully for various reported islands on the route, and arrived at Honolulu in January 1827. Early in March she bore away across the Pacific for China, rectifying the positions of such islands as lay near her course. Macao was reached in April. The Loo Choo Isles were subsequently visited, and some weeks were passed in making such observations and examinations as were possible in this little-known locality. Passing thence northward to Kamtchatka, Kotzebue Sound was again reached on the 5th of August, 1827. Here the decked boat was prepared for a second voyage of exploration to the North, and under Lieutenant Belcher's command

examined the coast from Chamisso Island to a position beyond Icy Cape, a distance of between 300 and 400 miles. On his return to Kotzebue Sound, after experiencing many risks, his little vessel was driven on shore in a gale of wind, and totally wrecked on Chamisso Island, three of her crew being drowned. The *Blossom* now finally quitted Behring Straits, all hope of attaining the principal object of her mission, viz. the meeting with Franklin, being at an end. After revisiting California and other ports on the American coast, she rounded Cape Horn, and returned to England in October 1828.

Lieutenant Belcher having been promoted to the rank of Commander in 1829, was in 1830 appointed to the command of the *Ætna*, employed in surveying the West Coast of Africa and parts of the Mediterranean. One of the principal features of his African work was the close examination of the dangerous shoals which extend some 70 miles off the coast in the neighbourhood of Rio Grande, south of the Gambia. This he effected by carrying off a floating triangulation by means of his ship, the *Raven* tender, two decked barges, and large beacon buoys, all of which were moored in position, and thus formed fixed objects from which to correctly determine the position of the shoals, and to carry out the necessary soundings. The violent surf on this part of the African coast, together with the hostility of the native tribes, rendered surveying not a little harassing as well as hazardous. It was in this neighbourhood that Captain Skyring subsequently fell a victim to the treachery of the natives.

The *Ætna* was ordered to pass the winter of 1832 within the bar of the Douro River, for the protection of British interests during the struggles between the parties of Doms Pedro and Miguel. Here Captain Belcher lost no opportunity of distinguishing himself; on one occasion he opened a communication with the Miguelites, by which the merchants inside and the squadron outside were enabled to obtain fresh supplies. The *Ætna's* crew, moreover, habitually manned the Bar boat which kept up communication with the squadron, and while exposed to the danger of the surf in crossing the Bar in rough weather, not unfrequently became a target for both the contending parties. Being on the spot myself as one of the besieged, I can bear personal testimony to the excellent service rendered by Captain Belcher and his crew during this trying period.

On the raising of the siege of Oporto, the *Ætna* went up the Medite:ranean, and among other services there thoroughly examined

the Skerki Rocks, settling the question that there was one, and not two, as had been reported.

On the paying-off of the *Ætna* in 1833, Captain Belcher was employed for some time on the survey of the coasts of the United Kingdom, principally in the Irish Channel.

We next find him in command of a Surveying Expedition, composed of the *Sulphur* and *Starling*, in the Pacific. In this voyage, like that of the *Blossom*, it was not contemplated that any very extensive surveying operations of a consecutive character could be carried out; neither the coasts nor isles of the Pacific were yet ripe for such operations; the great land-marks of the picture, so to speak, had to be firmly established before the details could be filled in, and so the voyage in question was principally occupied in carrying chronometrical distances between distant points, and making such accurate surveys as time would permit over a more or less limited area in the neighbourhood of these principal stations. Thus at Panama, where Captain Belcher assumed the command of the Expedition in January 1837, a survey was made of its bay and neighbourhood, when the two vessels immediately proceeded to San Blas in Mexico, nearly 2000 miles distant, examining *en route* the ports of Realejo and Libertad; they then stretched across the Pacific to the Sandwich Isles, a further distance of nearly 3000 miles. In this run Clarion Island was visited, and a cluster of islands which had been reported between the meridians of 130° and 135° w. proved not to exist, the same which had been unsuccessfully searched for by the *Blossom*.

On the 23rd of July the ships sailed from the Sandwich Isles for the North, and reached Port Etches, in King William Sound, lat. 60° 30' N., towards the end of August. The principal object of this cruise was to settle the discrepancies between the longitudes of Cook and Vancouver, and to determine the position and height of that great feature in the coast-range of North-West America, Mount St. Elias. The necessary surveys having been completed for the accomplishment of these objects, the Russian Settlement of Sitka was next visited; and, after calling at Nootka Sound, in Vancouver Island, to determine the longitude, the ships proceeded to San Francisco in California, which they reached on the 19th of October. During their stay there of about a month, the River Sacramento was surveyed for a distance of 150 miles from the ships' anchorage. Leaving San Francisco the end of November, and examining several portions of the coast and islands adjacent, San

Blas was again reached on the 20th of December, 1837. The next important stage on the voyage was Callao, where the *Sulphur* arrived in June 1838, having in the mean time visited and surveyed Acapulco, the Gulf of Papagayo, Port Culebra, and Cocos Island.

After a refit at Callao, the Coast of Peru was surveyed for about 60 miles to the south, when the ships again proceeded north, and, after securing observations at Payta, and making some examinations in the Gulf of Guayaquil, they arrived at Panama in October, where the first stage of the voyage may be said to have ended.

By the end of March 1839, surveys were completed of the extensive Gulfs of Fonseca and Nicoya in Central America, as well as of Pueblo Nuevo and Baia Honda, after which the Sandwich Isles were again visited, and then the ships moved northerly, repeating, to a great extent, the cruise of 1837, verifying observations then obtained, and adding to the work by new surveys. By September, the Bar and entrance of the Columbia River had been surveyed, and a reconnoissance of the river made as high as Port Victoria, the chief trading port of the Hudson's Bay Company. After leaving the Columbia, the ships proceeded to San Francisco, and from thence examined the Coast of California, and surveyed its several ports as far south as Cape St. Lucas, the entrance of the great gulf. At San Blas, which was reached in December 1839, orders were received to return to England by the western route, thus completing the voyage by a circumnavigation of the globe.

Accordingly, on the 1st of January, 1840, the two vessels set sail once more across the Pacific. The islands of Socorro and Clarion were visited, and their positions determined. The Marquesas Islands were reached the same month, and then they passed on to Bow Island, a coral formation in the lagoon, where six weeks were spent in the operation of boring for the volcanic formation on which these islands were suspected to rest. Subsequently Tahiti, and other of the Society Islands, were visited, and in succession the Friendly Group, the Fijis, New Hebrides, New Ireland, and New Guinea; at all of which observations were made, and such surveys as time would admit of.

The ships then passed through Dampier Strait, called at Gilolo, Amboyna, Macassar, and reached Singapore in October of the same year. Here Captain Belcher found orders to proceed immediately to China, and for more than a year the *Sulphur* and *Starling* took an active part in the hostilities with that country, making

such surveys as were essential to enable the fleets and the land forces to act with the best effect, and which tended materially to the capitulation of Canton, and the successful issue of the campaign.

The *Sulphur* finally arrived in England in July 1842, after a voyage extending over little short of seven years. For these services Commander Belcher received his post-rank, was nominated a Companion of the Bath, and shortly afterwards received the honour of Knighthood.

On the conclusion of peace with China, which followed shortly after the *Sulphur's* return, it was decided to commence a regular survey of the coasts, ports, and rivers, north of Canton; and the *Samarang*, a 26-gun frigate, was prepared for this service, Sir Edward Belcher being appointed to the command of her in November 1842. Political considerations, however, led to the *Samarang's* sphere of action being shifted to Borneo and the neighbouring islands of the Eastern Archipelago north to Japan—a sufficiently wide limit, embracing as it did some 40 degrees of latitude.

The vessel reached her station in the middle of 1843, and immediately commenced her work at the Sarawak on the west side of Borneo. Here she had the misfortune to ground on a reef, fall over, and sink in the river; but by the skill and energy of her captain was raised again, and, with the loss of less than a month's time, proceeded on her mission, viz. the examination of the Bashee Islands, the Majico Sima group east of Formosa, Luzon, Mindoro, and Mindanao of the Philippines; the Sulu Isles, Celebes, and Ternate.

At the conclusion of this stage of the voyage, Sir Edward Belcher having been severely wounded in a boat-encounter with the piratical prahus of Gilolo, the ship returned to Singapore, and after a short rest there resumed her employment, revisiting some of her former stations, examining portions of Loochoo, the island of Quelpart, the Korean Archipelago, and Japan; she returned thence to the Mindoro and Sulu Seas, and concluded her labours by surveying the north-west coast of Borneo, from the island of Balam-banjan, in the Strait of Balabac, to Labuan, then just become a British possession. The *Samarang* was now ordered home, and reached England on the last day of 1847.

Sir Edward Belcher's next employment afloat was in command of an expedition to the Arctic Seas in search of the missing ships under Sir John Franklin. This expedition, consisting of five vessels, left England in April 1852, and on arrival at Beechey Island, in Barrow

Strait, was separated into two divisions, the one proceeding westward to Melville Island, while Sir Edward himself, with two ships, ascended the Wellington Channel, and wintered at its head in an inlet which he named Northumberland Sound, in lat. $76^{\circ} 52' N.$ In the spring of 1853 he personally explored by sledges to the north, discovered and partially surveyed North Cornwall in $77^{\circ} 30' N.$, and the strait which bears his name leading eastward into Jones Sound; while other parties from his ships discovered and explored the north shores of Bathurst Island and Melville Island; and, crossing the latter, communicated with the division of the squadron under his second, Captain Kellett. A second winter was passed in Wellington Channel, and in the autumn of 1854, there seeming no probability of extricating the ships, four of them were abandoned, the crews returning over the ice to Beechey Island, whence they proceeded to England. With this voyage closed Sir Edward Belcher's active professional career; but he has continued to be a valued working member of this and other kindred Societies, and his active and gifted mind was devoted to the pursuit and cultivation of science and knowledge up to the latest days of his life.

LORD MILTON.—Amongst the Fellows of more than ordinary distinction, removed by death during the past year, I regret to have to include the name of Viscount Milton, who died in January last, at the early age of thirty-eight. Lord Milton had been a traveller from his youth up, and, in spite of a delicate frame and frequent illness, he succeeded in accomplishing substantial geographical work of considerable importance. His uncertain health compelled him to seek fresh life and vigour from time to time in some more bracing climate; and after several journeys to the Continent, and one to Iceland in 1861, he crossed the Atlantic to North America, and visited the regions to the west of the Red River Settlement in the Hudson Bay Territories. The favourable effect upon his health produced by the invigorating climate of the Great Plains, and the charm of the wild life there, induced Lord Milton to return there the following year, in company with Dr. Cheadle, with the view of making a more extensive exploration of the North-West Territory. At that time the gold mines of Cariboo, in British Columbia, were attracting much attention, and the only practicable route to them was the extremely circuitous one by Panama, or the little less indirect and more toilsome journey through United States territory by